AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 - 26 (cancelled).

27. (previously presented) A vehicle steering column comprising:

an axially extending input shaft for connecting to a vehicle steering wheel, the input shaft being rotatable about an axis upon rotation of the steering wheel;

- a housing at least partially enclosing the input shaft;
- a bearing interposed between the housing and the input shaft and supporting the input shaft for rotation about the axis, the bearing having an inner race engaging the input shaft and an outer race;

spaced, annular ribs that at least partially extend around the axis of the input shaft and around the outer race of the bearing, axially adjacent annular ribs being separated by an annular groove; and

between the outer race of the bearing and the ribs, the gasket comprising a tubular member encircling the outer race of the bearing, the gasket having a cylindrical inner surface and an outer surface, the inner surface engaging the outer race of

the bearing, and the outer surface engaging the ribs, the gasket having portions interdigitated with the ribs to resist relative axial movement between the gasket and the housing,

said axially adjacent annular ribs and said portions of the resilient material of said gasket interdigitated with said axially adjacent annular ribs comprising means for preventing said gasket from walk out from said housing,

each rib in the series of ribs having a uniform width and each rib in the series of ribs having a width in the range of 0.068 inches to 0.078 inches.

28. (previously presented) A vehicle steering column comprising:

an axially extending input shaft for connecting to a vehicle steering wheel, the input shaft being rotatable about an axis upon rotation of the steering wheel;

- a housing at least partially enclosing the input shaft;
- a bearing interposed between the housing and the input shaft and supporting the input shaft for rotation about the axis, the bearing having an inner race engaging the input shaft and an outer race;

the housing having at least one series of axially spaced, annular ribs that at least partially extend around the axis of the input shaft and around the outer race of the bearing, axially adjacent annular ribs being separated by an annular groove; and

between the outer race of the bearing and the ribs, the gasket comprising a tubular member encircling the outer race of the bearing, the gasket having a cylindrical inner surface and an outer surface, the inner surface engaging the outer race of the bearing, and the outer surface engaging the ribs, the gasket having portions interdigitated with the ribs to resist relative axial movement between the gasket and the housing,

said axially adjacent annular ribs and said portions of the resilient material of said gasket interdigitated with said axially adjacent annular ribs comprising means for preventing said gasket from walk out from said housing,

each rib in the series of ribs having a uniform height, each rib in the series of ribs having a height in the range of 0.025 inches to 0.035 inches.

29. (previously presented) A vehicle steering column comprising:

an axially extending input shaft for connecting to a vehicle steering wheel, the input shaft being rotatable about an axis upon rotation of the steering wheel;

a housing at least partially enclosing the input shaft;

a bearing interposed between the housing and the input shaft and supporting the input shaft for rotation about the axis, the bearing having an inner race engaging the input shaft and an outer race;

the housing having at least one series of axially spaced, annular ribs that at least partially extend around the axis of the input shaft and around the outer race of the bearing, axially adjacent annular ribs being separated by an annular groove; and

between the outer race of the bearing and the ribs, the gasket comprising a tubular member encircling the outer race of the bearing, the gasket having a cylindrical inner surface and an outer surface, the inner surface engaging the outer race of the bearing, and the outer surface engaging the ribs, the gasket having portions interdigitated with the ribs to resist relative axial movement between the gasket and the housing,

said axially adjacent annular ribs and said portions of the resilient material of said gasket interdigitated with said axially adjacent annular ribs comprising means for preventing said gasket from walk out from said housing,

each rib having a peak, each peak being flat and having an axial length in the range of 0.012 to 0.022 inches.

30. (previously presented) A vehicle steering column comprising:

an axially extending input shaft for connecting to a vehicle steering wheel, the input shaft being rotatable about an axis upon rotation of the steering wheel;

a housing at least partially enclosing the input shaft;

a bearing interposed between the housing and the input shaft and supporting the input shaft for rotation about the axis, the bearing having an inner race engaging the input shaft and an outer race;

the housing having at least one series of axially spaced, annular ribs that at least partially extend around the axis of the input shaft and around the outer race of the bearing, axially adjacent annular ribs being separated by an annular groove; and

between the outer race of the bearing and the ribs, the gasket comprising a tubular member encircling the outer race of the bearing, the gasket having a cylindrical inner surface and an outer surface, the inner surface engaging the outer race of the bearing, and the outer surface engaging the ribs, the gasket having portions interdigitated with the ribs to resist relative axial movement between the gasket and the housing,

said axially adjacent annular ribs and said portions of the resilient material of said gasket interdigitated with said axially adjacent annular ribs comprising means for preventing said gasket from walk out from said housing,

each annular groove having a valley, the valley being flat and forming a bottom surface of a cavity, the valley having an axial length in the range of 0.012 to 0.022 inches.

31. (previously presented) A vehicle steering column comprising:

an axially extending input shaft for connecting to a vehicle steering wheel, the input shaft being rotatable about an axis upon rotation of the steering wheel;

a housing at least partially enclosing the input shaft;

a bearing interposed between the housing and the input shaft and supporting the input shaft for rotation about the axis, the bearing having an inner race engaging the input shaft and an outer race:

the housing having at least one series of axially spaced, annular ribs that at least partially extend around the axis of the input shaft and around the outer race of the bearing, axially adjacent annular ribs being separated by an annular groove; and

between the outer race of the bearing and the ribs, the gasket comprising a tubular member encircling the outer race of the bearing, the gasket having a cylindrical inner surface and an outer surface, the inner surface engaging the outer race of the bearing, and the outer surface engaging the ribs, the gasket having portions interdigitated with the ribs to resist relative axial movement between the gasket and the housing,

said axially adjacent annular ribs and said portions of the resilient material of said gasket interdigitated with

said axially adjacent annular ribs comprising means for preventing said gasket from walk out from said housing,

each rib of the series of ribs having side surfaces that extend from the bottom surface at an angle of approximately 57 degrees.

32. (previously presented) A vehicle steering column comprising:

an axially extending steering input shaft for connecting to a vehicle steering wheel, the input shaft being rotatable about an axis upon rotation of the steering wheel;

a housing having a cylindrical portion at least partially enclosing the input shaft and having inner and outer surfaces and first and second axially spaced apart ring shaped cavities that extend radially into the inner surface of the cylindrical portion of the housing, the first and second ring shaped cavities being spaced apart by a ring shaped projection of said cylindrical portion of the housing;

first and second bearings interposed between the housing and the input shaft in the first and second cavities, respectively, and supporting the input shaft for rotation about the axis, each of the first and second bearings having an inner race engaging the input shaft and an outer race;

each of the first and second cavities having a series of annular ribs that at least partially extend around the axis of the input shaft and around the outer race of the bearing in the respective first and second cavities, axially

adjacent annular ribs being separated by an annular groove; and

first and second gaskets made of resilient material in each of the first and second cavities and interposed between the outer race of the bearing and the ribs, each of the first and second gaskets comprising a tubular member encircling the outer race of the bearing, the resilient material of each of the gaskets having a cylindrical inner surface and an outer surface, the cylindrical inner surface of the resilient material of each gasket engaging the outer race of the bearing, and the outer surface of the resilient material of each gasket engaging the ribs, the resilient material of each gasket having portions interdigitated with the ribs of each of the first and second cavities to resist relative axial movement between the resilient material of each respective gasket and the housing,

said axially adjacent annular ribs and said portions of the resilient material of each gasket interdigitated with said axially adjacent annular ribs comprising means for preventing said first and second gaskets from walk out from said first and second cavities,

each rib in the series of ribs having a uniform width, each rib in the series of ribs having a width in the range of 0.068 inches to 0.078 inches.

33. (previously presented) A vehicle steering column comprising:

an axially extending steering input shaft for connecting to a wehicle steering wheel, the input shaft being rotatable about an axis upon rotation of the steering wheel;

a housing having a cylindrical portion at least partially enclosing the input shaft and having inner and outer surfaces and first and second axially spaced apart ring shaped cavities that extend radially into the inner surface of the cylindrical portion of the housing, the first and second ring shaped cavities being spaced apart by a ring shaped projection of said cylindrical portion of the housing;

first and second bearings interposed between the housing and the input shaft in the first and second cavities, respectively, and supporting the input shaft for rotation about the axis, each of the first and second bearings having an inner race engaging the input shaft and an outer race;

each of the first and second cavities having a series of annular ribs that at least partially extend around the axis of the input shaft and around the outer race of the bearing in the respective first and second cavities, axially adjacent annular ribs being separated by an annular groove; and

first and second gaskets made of resilient material in each of the first and second cavities and interposed between the outer race of the bearing and the ribs, each of the first and second gaskets comprising a tubular member encircling the outer race of the bearing, the resilient material of each of the gaskets having a cylindrical inner

surface and an outer surface, the cylindrical inner surface of the resilient material of each gasket engaging the outer race of the bearing, and the outer surface of the resilient material of each gasket engaging the ribs, the resilient material of each gasket having portions interdigitated with the ribs of each of the first and second cavities to resist relative axial movement between the resilient material of each respective gasket and the housing,

said axially adjacent annular ribs and said portions of the resilient material of each gasket interdigitated with said axially adjacent annular ribs comprising means for preventing said first and second gaskets from walk out from said first and second cavities.

each rib in the series of ribs having a uniform height, each rib in the series of ribs having a height in the range of 0.025 inches to 0.035 inches.

34. (previously presented) A vehicle steering column comprising:

an axially extending steering input shaft for connecting to a vehicle steering wheel, the input shaft being rotatable about an axis upon rotation of the steering wheel;

a housing having a cylindrical portion at least partially enclosing the input shaft and having inner and outer surfaces and first and second axially spaced apart ring shaped cavities that extend radially into the inner surface of the cylindrical portion of the housing, the first and second ring

shaped cavities being spaced apart by a ring shaped projection
of said cylindrical portion of the housing;

housing and the input shaft in the first and second cavities,
respectively, and supporting the input shaft for rotation
about the axis, each of the first and second bearings having
an inner race engaging the input shaft and an outer race;

each of the first and second cavities having a series of annular ribs that at least partially extend around the axis of the input shaft and around the outer race of the bearing in the respective first and second cavities, axially adjacent annular ribs being separated by an annular groove; and

first and second gaskets made of resilient material in each of the first and second cavities and interposed between the outer race of the bearing and the ribs, each of the first and second gaskets comprising a tubular member encircling the outer race of the bearing, the resilient material of each of the gaskets having a cylindrical inner surface and an outer surface, the cylindrical inner surface of the resilient material of each gasket engaging the outer race of the bearing, and the outer surface of the resilient material of each gasket engaging the ribs, the resilient material of each gasket having portions interdigitated with the ribs of each of the first and second cavities to resist relative axial movement between the resilient material of each respective gasket and the housing,

said axially adjacent annular ribs and said portions of the resilient material of each gasket interdigitated with said axially adjacent annular ribs comprising means for preventing said first and second gaskets from walk out from said first and second cavities,

each rib having a peak, each peak being flat and having an axial length in the range of 0.012 to 0.022 inches.

35. (previously presented) A vehicle steering column comprising:

an axially extending steering input shaft for connecting to a vehicle steering wheel, the input shaft being rotatable about an axis upon rotation of the steering wheel;

a housing having a cylindrical portion at least partially enclosing the input shaft and having inner and outer surfaces and first and second axially spaced apart ring shaped cavities that extend radially into the inner surface of the cylindrical portion of the housing, the first and second ring shaped cavities being spaced apart by a ring shaped projection of said cylindrical portion of the housing;

first and second bearings interposed between the housing and the input shaft in the first and second cavities, respectively, and supporting the input shaft for rotation about the axis, each of the first and second bearings having an inner race engaging the input shaft and an outer race;

each of the first and second cavities having a series of annular ribs that at least partially extend around

the axis of the input shaft and around the outer race of the bearing in the respective first and second cavities, axially adjacent annular ribs being separated by an annular groove; and

first and second gaskets made of resilient material in each of the first and second cavities and interposed between the outer race of the bearing and the ribs, each of the first and second gaskets comprising a tubular member encircling the outer race of the bearing, the resilient material of each of the gaskets having a cylindrical inner surface and an outer surface, the cylindrical inner surface of the resilient material of each gasket engaging the outer race of the bearing, and the outer surface of the resilient material of each gasket engaging the ribs, the resilient material of each gasket having portions interdigitated with the ribs of each of the first and second cavities to resist relative axial movement between the resilient material of each respective gasket and the housing,

said axially adjacent annular ribs and said portions of the resilient material of each gasket interdigitated with said axially adjacent annular ribs comprising means for preventing said first and second gaskets from walk out from said first and second cavities,

each annular groove having a valley, the valley being flat and forming a bottom surface of a cavity, the valley having an axial length in the range of 0.012 to 0.022 inches.

36. (previously presented) A vehicle steering column comprising:

an axially extending steering input shaft for connecting to a vehicle steering wheel, the input shaft being rotatable about an axis upon rotation of the steering wheel;

a housing having a cylindrical portion at least partially enclosing the input shaft and having inner and outer surfaces and first and second axially spaced apart ring shaped cavities that extend radially into the inner surface of the cylindrical portion of the housing, the first and second ring shaped cavities being spaced apart by a ring shaped projection of said cylindrical portion of the housing;

first and second bearings interposed between the housing and the input shaft in the first and second cavities, respectively, and supporting the input shaft for rotation about the axis, each of the first and second bearings having an inner race engaging the input shaft and an outer race;

each of the first and second cavities having a series of annular ribs that at least partially extend around the axis of the input shaft and around the outer race of the bearing in the respective first and second cavities, axially adjacent annular ribs being separated by an annular groove; and

first and second gaskets made of resilient material in each of the first and second cavities and interposed between the outer race of the bearing and the ribs, each of the first and second gaskets comprising a tubular member

encircling the outer race of the bearing, the resilient material of each of the gaskets having a cylindrical inner surface and an outer surface, the cylindrical inner surface of the resilient material of each gasket engaging the outer race of the bearing, and the outer surface of the resilient material of each gasket engaging the ribs, the resilient material of each gasket engaging the ribs, the resilient material of each gasket having portions interdigitated with the ribs of each of the first and second cavities to resist relative axial movement between the resilient material of each respective gasket and the housing,

said axially adjacent annular ribs and said portions of the resilient material of each gasket interdigitated with said axially adjacent annular ribs comprising means for preventing said first and second gaskets from walk out from said first and second cavities,

each rib of the series of ribs having side surfaces that extend from the bottom surface at an angle of approximately 57 degrees.

37. (previously presented) A vehicle steering column comprising:

an axially extending steering input shaft for connecting to a vehicle steering wheel, the input shaft being rotatable about an axis upon rotation of the steering wheel;

a housing having a cylindrical portion at least partially enclosing the input shaft and having inner and outer surfaces and first and second axially spaced apart ring shaped

cavities that extend radially into the inner surface of the cylindrical portion of the housing, the first and second ring shaped cawities being spaced apart by a ring shaped projection of said cylindrical portion of the housing;

first and second bearings interposed between the housing amd the input shaft in the first and second cavities, respectively, and supporting the input shaft for rotation about the axis, each of the first and second bearings having an inner race engaging the input shaft and an outer race;

each of the first and second cavities having a series of annular ribs that at least partially extend around the axis of the input shaft and around the outer race of the bearing in the respective first and second cavities, axially adjacent annular ribs being separated by an annular groove; and

in each of the first and second cavities and interposed between the outer race of the bearing and the ribs, each of the first and second gaskets comprising a tubular member encircling the outer race of the bearing, the resilient material of each of the gaskets having a cylindrical inner surface and an outer surface, the cylindrical inner surface of the resilient material of each gasket engaging the outer race of the bearing, and the outer surface of the resilient material of each gasket engaging the ribs, the resilient material of each gasket having portions interdigitated with the ribs of each of the first and second cavities to resist

relative axial movement between the resilient material of each respective gasket and the housing,

said axially adjacent annular ribs and said portions of the resilient material of each gasket interdigitated with said axially adjacent annular ribs comprising means for preventing said first and second gaskets from walk out from said first and second cavities,

each rib in the series of ribs has a width and a height, the width being in the range of 0.068 inches to 0.078 inches, the height being in the range of 0.025 inches to 0.035 inches, each rib having a flat peak with an axial length in the range of 0.012 inches to 0.022 inches;

each annular groove having a flat valley with an axial length in the range of 0.012 inches to 0.022 inches; and

each rib of the series of ribs having side surfaces that extend from the bottom surface at an angle of approximately 57 degrees.

38. (previously presented) A vehicle steering column comprising:

an axially extending input shaft for connecting to a vehicle steering wheel, the input shaft being rotatable about an axis upon rotation of the steering wheel;

a housing at least partially enclosing the input shaft;

a bearing interposed between the housing and the input shaft and supporting the input shaft for rotation about

the axis, the bearing having an inner race engaging the input shaft and an outer race;

the housing having at least one series of axially spaced, annular ribs that at least partially extend around the axis of the input shaft and around the outer race of the bearing, axially adjacent annular ribs being separated by an annular groove; and

between the outer race of the bearing and the ribs, the gasket comprising a tubular member encircling the outer race of the bearing, the gasket having a cylindrical inner surface and an outer surface, the inner surface engaging the outer race of the bearing, and the outer surface engaging the ribs, the gasket having portions interdigitated with the ribs to resist relative axial movement between the gasket and the housing,

of the resilient material of said gasket interdigitated with said axially adjacent annular ribs comprising means for preventing said gasket from walk out from said housing,

each rib in the series of ribs has a width and a height, the width being in the range of 0.068 inches to 0.078 inches, the height being in the range of 0.025 inches to 0.035 inches, each rib having a flat peak with an axial length in the range of 0.012 inches to 0.022 inches;

each annular groove having a flat valley with an axial length in the range of 0.012 inches to 0.022 inches; and

each rib of the series of ribs having side surfaces that extend from the bottom surface at an angle of approximately 57 degrees.

39. (new) A vehicle steering column comprising:

an axially extending input shaft for connecting to a vehicle steering wheel, the input shaft being rotatable about an axis upon rotation of the steering wheel;

a housing at least partially encircling the input shaft, said housing includes first and second housing parts which are assembled together to form first and second axially spaced apart chambers which extend around said input shaft and have ribbed bottom surfaces,

a first bearing assembly having an inner race connected with said input shaft, an outer race seated in said first chamber im engagement with said first and second housing parts, and a plurality of rotatable bearing elements disposed between said inmer and outer races of said first bearing assembly,

a second bearing assembly having an inner race connected with said input shaft at a location axially spaced from said first bearing assembly, said second bearing assembly having an outer race seated in said second chamber in engagement with said first and second housing parts, and a plurality of bearing elements disposed between said inner and outer races of said second bearing assembly,

a first gasket disposed in said first chamber between said outer race of said first bearing assembly and said ribbed bottom surface of said first chamber, said first gasket being disposed in engagement with said first and second housing parts, and

a second gasket disposed in said second chamber between said outer race of said second bearing assembly and said ribbed bottom surface of said second chamber, said second gasket being disposed in engagement with said first and second housing parts, said second gasket being axially spaced from said first gasket.

- 40. (new) The vehicle steering column of claim 39 wherein said first gasket has annular ribs which are formed by engagement with the ribbed bottom surface of said first chamber, said second gasket has annular ribs which are formed by engagement with the ribbed bottom surface of said second chamber.
- 41. (new) The vehicle steering column of claim 39 wherein said first gasket has a plurality of annular ribs with parallel circular crests, the crest of each rib on said first gasket is spaced from the crest of an adjacent rib on said first gasket, said second gasket has a plurality of annular ribs with parallel circular crests, the crest of each rib on

said second gasket is spaced from the crest of an adjacent rib on said second gasket.

- 42. (new) The vehicle steering column of claim 39 wherein said first and second housing parts at least partially define a cylindrical surface which extends from an axial end portion of said first chamber to an axial end portion of said second chamber, said first and second gaskets being spaced from said cylindrical surface.
- (new) The vehicle steering column of 39 wherein said first and second housing parts have a first annular radially extending surface which at least partially defines a first end of said first chamber and a second annular radially extending surface which at least partially defines a second end of said first chamber, said outer race of said first bearing assembly has a first annular end surface which is disposed in engagement with said first annular radially extending surface on said first and second housing parts, said outer race of said first bearing assembly has a second annular end surface which is disposed in engagement with said second radially extending surface on said first and second housing parts, said first and second housing parts have a third annular radially extending surface which at least partially defines a first end of said second chamber and a fourth annular radially extending surface which at least partially

defines a second end of said second chamber, said outer race of said second bearing assembly has a first annular end surface which is disposed in engagement with said third annular radially extending surface on said first and second housing parts, said outer race of said second bearing assembly has a second annular end surface which is disposed in engagement with said fourth radially extending surface on said first and second housing parts.

- 44. (new) The vehicle steering column of claim 43 wherein said first gasket has a first annular end surface which is disposed in engagement with said first annular radially extending surface on said first and second housing parts, said first gasket has a second annular end surface which is disposed in engagement with said second radially extending surface on said first and second housing parts, said second gasket has a first annular end surface which is disposed in engagement with said third annular radially extending surface on said first and second housing parts, said second gasket has a second annular end surface which is disposed in engagement with said fourth radially extending surface on said first and second housing parts.
- 45. (new) The vehicle steering column of claim 44 wherein said first gasket has a cylindrical side surface which extends between said first and second annular radially

extending surfaces on said first and second housing parts and is disposed in engagement with a cylindrical side surface on said outer race of said first bearing assembly, said second gasket has a cylindrical side surface which extends between said third and fourth annular radially extending surfaces on said first and second housing parts and is disposed in engagement with a cylindrical side surface on said outer race of said second bearing assembly.

46. (new) A vehicle steering column comprising:

an axially extending input shaft for connecting to a vehicle steering wheel, the input shaft being rotatable about an axis upon rotation of the steering wheel;

a housing which extends around the input shaft, said housing includes an annular chamber which has a bottom with a plurality of annular ribs which extend around said input shaft and have parallel circular crests, the crest on each rib is spaced from the crest on an adjacent rib,

a bearing assembly having an inner race connected with said input shaft, an outer race seated in said chamber in said housing, said outer race having a first annular end which is disposed in engagement with a first radially extending surface on said housing and a second annular end which is disposed in engagement with a second radially extending surface on said housing to enable said outer race to block an entrance to said chamber, and a plurality of rotatable bearing

elements disposed between said inner and outer races of said bearing assembly, and

a gasket which is entirely disposed in said chamber between said outer race of said bearing assembly and said bottom of said chamber, said gasket extends into spaces between said amnular ribs to retain said gasket against axial movement relative to said housing.

(new) The vehicle steering column of claim 46 wherein said housing includes a second annular chamber which has a bottom with a second plurality of annular ribs which extend around said input shaft and have parallel circular crests, the crest on each rib is spaced from the crest on an adjacent rib, a second bearing assembly having an inner race connected with said input shaft, said second bearing assembly having an outer race seated in said second chamber in said housing, said outer race of said second bearing assembly having a first annular end which is disposed in engagement with a third radially extending surface on said housing and a fourth annular end which is disposed in engagement with a fourth radially extending surface on said housing to enable said outer race of said second bearing assembly to block an entrance to said second chamber, said second bearing assembly having a plurality of rotatable bearing elements disposed between said immer and outer races of said second bearing assembly, a second gasket which is entirely disposed in said second chamber between said outer race of said second bearing

assembly and said bottom of said second chamber, said second gasket extends into spaces between said second annular ribs to retains aid second gasket against axial movement relative to said housing.

- 48. (new) The vehicle steering column of claim 46 wherein said gasket has annular ribs which are formed by engagement with the annular ribs on the bottom of said chamber.
- 49. (new) The vehicle steering column of claim 46 wherein said housing includes first and second housing parts which are assembled together to form said chamber.

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